

IN THE CLAIMS:

Please amend the claims as follows:

1. (Canceled).

5

2. (Canceled).

3. (Canceled).

10 4. (Canceled).

5. (Canceled).

6. (Canceled).

15

7. (Canceled).

8. (Canceled).

20 9. (Canceled).

10. (Canceled).

11. (Canceled).

25

12. (Canceled).

13. (Canceled).

14. (Canceled).

15. (Canceled).

5

16. (Canceled).

17. (Canceled).

10 18. (Canceled).

19. (Canceled).

20. (Canceled).

15

21. (Withdrawn)

22. (Withdrawn)

20 23. (Withdrawn)

24. (Previously Presented) A method for amplifying signals, the method comprising the steps of:

determining that a voltage on a signal line is to be amplified; and

25

modifying voltage on a control line, wherein the control line is coupled to a second terminal of a two terminal semiconductor device, the two terminal semiconductor device having the second terminal and a first terminal, the first terminal coupled to the signal line, the second terminal coupled to the control line, wherein the two terminal semiconductor device is

adapted to have a capacitance when a voltage on the first terminal is in a first voltage range and to have a lower capacitance when the voltage on the first terminal is in a second voltage range, wherein said first and second voltage ranges are defined by a threshold voltage, and wherein the control line is adapted to be coupled to a control signal and wherein the signal line is adapted to be coupled to a signal and to be an output of the circuit; and

wherein an isolation device is intermediate the signal line and the two terminal semiconductor device, the isolation device having an input, an output and a control terminal, the input of the isolation device coupled to the signal line and the output of the isolation device coupled to the first terminal, wherein the output of the isolation device is adapted to be the output of the circuit, and wherein the method further comprises the step of applying a control voltage to the control terminal of the isolation device, the control voltage being greater than a threshold voltage of the isolation device.

25. (Original) The method of claim 24, wherein the control voltage applied to the control terminal of the isolation device plus an expected voltage for a signal coupled to the input of the isolation device, whereby the isolation device passes signals having voltages less than the expected voltage and does not pass signals having voltages greater than the expected voltage.

26. (Original) The method of claim 24, wherein the isolation device comprises a Field Effect Transistor (FET) and wherein the FET is adapted to be turned on when voltage on the signal line is below a predetermined value, and is adapted to be turned off when voltage on the first terminal of the two terminal semiconductor device is above a predetermined value.

27. (Original) The method of claim 26, wherein the FET is an n-type FET, wherein the control terminal of the FET is the gate of the FET, and wherein the step of applying a control voltage to the control terminal of the isolation device of the isolation device further comprises the step of applying a voltage above a threshold voltage to the gate of the FET.

28. (Original) The method of claim 26, wherein the FET is a p-type FET, wherein the control terminal of the FET is a gate, and wherein the step of applying a control voltage to the control terminal of the isolation device of the isolation device further comprises the step of applying a voltage below a threshold voltage to gate of the FET.

5

29. (Withdrawn)

30. (Withdrawn)

10 31. (Withdrawn)

32. (Withdrawn)

33. (Withdrawn)

15

34. (Withdrawn)

35. (Withdrawn)

20 36. (Original) The method of claim 24, further comprising the step of generating the control voltage by using at least a reference voltage and the control voltage.

37. (Original) The method of claim 36, wherein the step of generating the control voltage further comprises the step of generating the reference voltage by using one or more of
25 the following: a ground voltage; a power supply voltage; the signal; the threshold voltage; one or more additional threshold voltages; one or more temperature signals; and the control voltage.

38. (Canceled).

39. (Canceled).

40. (Canceled).

5

41. (Canceled).

42. (Canceled).